

Title (en)  
Lubricant composition for fluorinated refrigerants

Title (de)  
Schmierzusammensetzung für fluorierte Kühlmittel

Title (fr)  
Composition lubrifiante pour réfrigérants fluorés

Publication  
**EP 0498152 B1 19970618 (EN)**

Application  
**EP 92100154 A 19920107**

Priority  
• US 64246491 A 19910117  
• US 77061591 A 19911003

Abstract (en)  
[origin: EP0498152A1] A lubricant composition of suitable viscosity miscible in non-chlorinated, fluorinated hydrocarbon refrigerants includes polyhydric alcohol esters, such as TMP, mono and/or di-pentaerythritol esters, made with branched carboxylic acids.

IPC 1-7  
**C10M 171/00**; C10M 105/38; C09K 5/04

IPC 8 full level  
**C09K 5/04** (2006.01); **C10M 105/38** (2006.01); **C10M 171/00** (2006.01); C10N 30/02 (2006.01); C10N 30/06 (2006.01); C10N 30/08 (2006.01); C10N 40/30 (2006.01); C10N 70/00 (2006.01)

CPC (source: EP KR US)  
**C09K 5/045** (2013.01 - EP US); **C10M 105/38** (2013.01 - EP US); **C10M 169/00** (2013.01 - KR); **C10M 171/008** (2013.01 - EP US); C09K 2205/24 (2013.01 - EP US); C09K 2205/42 (2013.01 - EP US); C10M 2203/06 (2013.01 - EP US); C10M 2207/281 (2013.01 - EP US); C10M 2207/282 (2013.01 - EP US); C10M 2207/283 (2013.01 - EP US); C10M 2207/286 (2013.01 - EP US); C10M 2211/022 (2013.01 - EP US); C10M 2211/042 (2013.01 - EP US); C10M 2211/06 (2013.01 - EP US); C10N 2040/00 (2013.01 - EP US); C10N 2040/30 (2013.01 - EP US); C10N 2040/32 (2013.01 - EP US); C10N 2040/34 (2013.01 - EP US); C10N 2040/36 (2013.01 - EP US); C10N 2040/38 (2020.05 - EP US); C10N 2040/40 (2020.05 - EP US); C10N 2040/42 (2020.05 - EP US); C10N 2040/44 (2020.05 - EP US); C10N 2040/50 (2020.05 - EP US)

Cited by  
EP1533363A1; US5728658A; FR2734576A1; EP0622445A1; EP3561028A1; US6054064A; EP0568349A1; EP0580308A1; US5395544A; US5494597A; CN1072253C; US5503761A; EP0518567A1; EP0653479A4; GB2274463A; US5531080A; AU2006272507B2; US5817607A; US5767047A; US5658863A; US5681800A; US5833876A; US5853609A; US9481852B2; US6444626B1; US6245254B1; CN100344738C; BE1008474A3; US5470497A; AU683235B2; WO2007014337A1; WO9413764A1; WO02099021A1; WO9601882A1; EP2083062A4; WO9719144A1; WO9910455A1; WO9637579A1; WO9409096A1; WO9416028A1; US8603354B2; US9315707B2; US10358590B2; US10988653B2; US7387746B2

Designated contracting state (EPC)  
BE DE DK ES FR GB IT NL SE

DOCDB simple family (publication)  
**EP 0498152 A1 19920812**; **EP 0498152 B1 19970618**; AU 1001895 A 19950223; AU 1024392 A 19920723; AU 653572 B2 19941006; AU 694972 B2 19980806; BR 9200125 A 19921006; CA 2059423 A1 19920718; CA 2059423 C 20020625; DE 69220392 D1 19970724; DE 69220392 T2 19980129; ES 2104738 T3 19971016; JP 3097970 B2 20001010; JP H04311797 A 19921104; KR 100194542 B1 19990615; KR 920014924 A 19920825; MX 9200200 A 19930801; NO 306682 B1 19991206; NO 920213 D0 19920116; NO 920213 L 19920720; US 5486302 A 19960123; US 5612299 A 19970318

DOCDB simple family (application)  
**EP 92100154 A 19920107**; AU 1001895 A 19950104; AU 1024392 A 19920116; BR 9200125 A 19920116; CA 2059423 A 19920115; DE 69220392 T 19920107; ES 92100154 T 19920107; JP 676592 A 19920117; KR 920000635 A 19920117; MX 9200200 A 19920117; NO 920213 A 19920116; US 35896894 A 19941219; US 46826795 A 19950606